

# **EXHIBIT 1**

# **FILED UNDER SEAL**

**In the Matter Of:**

*In Re: Pork Antitrust Litigation*

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*MICHAEL WILLIAMS*

*December 29, 2022*

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| Page 1  | Page 3                                    |
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| 2 UNITED STATES DISTRICT COURT                | 2 REMOTE APPEARANCES:                     |
| 3 DISTRICT OF MINNESOTA                       | 3   |
| 4 Case No. 0:18-cv-01776-JRT-HB               | 4 CUNEO GILBERT & LADUCA, LLP             |
| 5 -----                                       | 5 Counsel on Behalf of The Witness        |
| 6   | 6 4725 Wisconsin Avenue NW                |
| 7 IN RE:                                      | 7 Suite 200                               |
| 8 PORK ANTITRUST LITIGATION                   | 8 Washington, D.C. 20016                  |
| 9   | 9 BY: BLAINE FINLEY, ESQ.                 |
| 10 -----                                      | 10 bfinley@cuneolaw.com                   |
| 11  | 11  |
| 12 **CONFIDENTIAL**                           | 12  |
| 13  | 13 STINSON                                |
| 14 REMOTE VIDEO DEPOSITION OF                 | 14 Counsel on Behalf of Seaboard Food     |
| 15 MICHAEL A. WILLIAMS                        | 15 50 South Sixth Street                  |
| 16  | 16 Suite 2600                             |
| 17 Thursday, December 29, 2022                | 17 Minneapolis, Minnesota 55402           |
| 18 11:06 a.m. (EST)                           | 18 BY: PETER J. SCHWINGLER, ESQ.          |
| 19  | 19  |
| 20  | 20  |
| 21  | 21  |
| 22  | 22  |
| 23 Reported by:                               | 23  |
| 24 Joan Ferrara, RMR, FCRR                    | 24 (Continued)                            |
| 25 Job No. 2022-876704                        | 25  |
| Page 2  | Page 4                                    |
| 1   | 1   |
| 2   | 2 REMOTE APPEARANCES: (Continued)         |
| 3 December 29, 2022                           | 3   |
| 4 11:06 a.m. (EST)                            | 4 LOCKRIDGE GRINDAL NAUEN P.L.L.P         |
| 5   | 5 Counsel on Behalf of Direct Purchaser   |
| 6   | 6 Plaintiffs                              |
| 7   | 7 100 S Washington Avenue                 |
| 8 Confidential Video Deposition of            | 8 #2200                                   |
| 9 MICHAEL A. WILLIAMS, held remotely via      | 9 Minneapolis, Minnesota 55401            |
| 10 Zoom, before Joan Ferrara, a Registered    | 10 BY: SARAH LUNDBERG, ESQ.               |
| 11 Merit Reporter, Federal Certified Realtime | 11  |
| 12 Reporter and Notary Public.                | 12  |
| 13  | 13 GUSTAFSON GLUEK                        |
| 14  | 14 Counsel on Behalf of Consumer Indirect |
| 15  | 15 Purchaser Plaintiffs                   |
| 16  | 16 120 South 6th Street                   |
| 17  | 17 Suite 2600                             |
| 18  | 18 Minneapolis, Minnesota 55402           |
| 19  | 19 BY: DAN HEDLUND, ESQ.                  |
| 20  | 20  |
| 21  | 21  |
| 22  | 22  |
| 23  | 23  |
| 24  | 24 (Continued)                            |
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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 shift -- if you look at Figure 1, that<br>3 would cause a different effect. That would<br>4 cause the derived demand for pork -- I'm<br>5 sorry, the derived demand for hogs to shift<br>6 to the right.<br><b>7 Q. And you're not opining that the<br/>8 conspiracy caused the consumer demand curve<br/>9 to shift in either direction, is that<br/>10 right?</b><br>11 A. You asked me that earlier, and is<br>12 that correct, I'm not offering an opinion<br>13 that the alleged conspiracy caused the<br>14 consumer demand for pork products to shift<br>15 to the left or to the right.<br><b>16 Q. Okay. And so because there's no<br/>17 change in the consumer demand, then explain<br/>18 how derived demand connects the dots<br/>19 between the alleged conspiracy in a<br/>20 reduction in demand for hogs?</b><br>21 MR. FINLEY: Objection. Form.<br>22 May mischaracterize prior testimony.<br>23 A. Yeah. Actually, you answered<br>24 your own question a few minutes ago. If we<br>25 think about the demand for pork products,                          | Page 129<br><br><b>1 M. WILLIAMS - CONFIDENTIAL<br/>2 alleged conspiracy, is that correct?<br/>3 MR. FINLEY: Objection. Form.<br/>4 Lack of foundation. Vague.<br/>5 A. Yeah, all else equal, if the<br/>6 derived demand shifts to the left, then the<br/>7 quantities supplied of hogs will fall from<br/>8 Q but-for to Q actual. And if assuming<br/>9 that the supply curve of hogs is upward<br/>10 sloping, then the equilibrium price of hogs<br/>11 would fall from P but-for to P actual,<br/>12 again holding all other factors constant.<br/>13 Q. And does Figure 1 depict what you<br/>14 believe actually happened? Did, in fact,<br/>15 hog prices fall below but-for levels as a<br/>16 result of the Defendants' alleged conduct?</b><br>17 MR. FINLEY: Objection. Form.<br>18 Vague. Ambiguous.<br>19 A. Yeah, my report doesn't offer an<br>20 opinion on that. The point to this graph<br>21 was, as we've talked about in a few minutes<br>22 ago, was to show that Dr. -- that -- again<br>23 I'll just come back to that sentence in<br>24 paragraph 52, "even if the supply of hogs<br>25 was controlled by non-Defendants, that fact |
| Page 130<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 the effect of the alleged conspiracy is to<br>3 cause the price to increase.<br>4 Because this price, pork products<br>5 increases, the quantity purchased of pork<br>6 products is going to decline. It's going<br>7 to go from -- I don't have a graph that<br>8 shows this -- but we're going to -- the<br>9 equilibrium quantity demanded of pork<br>10 products is going to decline.<br>11 And when that happens, less pork<br>12 products are produced, less pork products<br>13 are purchased. Therefore, the derived<br>14 demand for hogs will shift to the left<br>15 because not as many hogs are required,<br>16 given that there's this alleged conspiracy<br>17 that is reducing the quantity -- the supply<br>18 of pork products.<br><b>19 Q. Okay. Thank you. I appreciate<br/>20 that.</b><br><b>21 So let's take a look at Figure 1<br/>22 again. I'm just working off of the figure<br/>23 here. This shows that not only did the<br/>24 quantity supplied for hogs go down, but hog<br/>25 prices also went down as a result of the</b> | Page 130<br><br><b>1 M. WILLIAMS - CONFIDENTIAL<br/>2 would not prevent Defendants from<br/>3 collusively reducing the supply of pork<br/>4 products."</b><br>5 And so that's really the point to<br>6 this discussion generally and Figure 1, in<br>7 particular. But no, my report doesn't<br>8 offer a specific opinion about actual and<br>9 but-for hog prices.<br><b>10 Q. So would you say Figure 1 is<br/>11 illustrative of a point you're making, but<br/>12 not an opinion about what, in fact,<br/>13 happened as a result of the conspiracy?</b><br>14 MR. FINLEY: Objection. Vague<br>15 and ambiguous.<br>16 A. I wouldn't agree with that. I<br>17 think it's -- I think it's abundantly clear<br>18 that the derived demand for hogs did shift<br>19 to the left. And the reason I say it's<br>20 abundantly clear is because that's exactly<br>21 what the econometric shows in the pork<br>22 production regression in my opening report<br>23 and the various robustness analyses that<br>24 are conducted in my reply report. That the<br>25 disputed conduct did cause actual pork   |

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| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2           MR. FINLEY: Objection. Form.<br>3       Scope. Calls for speculation.<br>4       A. I don't believe my report<br>5       comments on this particular sentence.<br>6       Q. I think I'm done with Professor<br>7       Mintert's report for now. If I'm wrong, I<br>8       apologize.<br>9           Let's take a look at Exhibit 9,<br>10      which is Dr. Haider's report, and I'd ask<br>11      you to turn to paragraph 74.<br>12           It starts on page 45, for those<br>13      following along.<br>14       A. Yeah, so I see paragraph 74.<br>15       Q. So the first -- let's start with<br>16      the first sentence of paragraph 74.<br>17      Dr. Haider writes: "Indeed, the prices of<br>18      corn and soybean meal dramatically<br>19      increased in 2007 and 2008, with prices<br>20      more than doubling between 2006 and 2008."<br>21           Did I read that correctly?<br>22       A. Yes, sir.<br>23       Q. And you don't dispute that<br>24      statement by Dr. Haider, correct?<br>25       MR. FINLEY: Objection. Form. | Page 169 | Page 171<br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       Q. If you look at -- go down a few<br>3       sentences, just the first sentence at the<br>4       top of 46, still in paragraph 74, starting<br>5       with "Moreover" -- do you see that?<br>6       A. Yes, I see that.<br>7       Q. So Dr. Haider writes: "Moreover,<br>8       vaccines for Porcine Circovirus Type 2 were<br>9       introduced in 2006 and widespread<br>10      vaccination began in mid-2007."<br>11           Did I read that correctly?<br>12       A. Yes, sir.<br>13       Q. And you don't dispute that<br>14      statement by Dr. Haider either, correct?<br>15       MR. FINLEY: Objection. Form.<br>16       Scope. Calls for speculation.<br>17       A. I don't recall a sentence in my<br>18      reply report that specifically disputes<br>19      that sentence.<br>20       Q. And apart from kind of the<br>21      specifics of your reply report, you don't<br>22      dispute the general timeline here that the<br>23      Circovirus vaccine was introduced in 2006<br>24      and the widespread vaccinations began in<br>25      mid-2007?   |
| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       Scope. Calls for speculation.<br>3       A. Yeah, I don't remember a sentence<br>4       in my reply report that specifically<br>5       disputes that first sentence in<br>6       Dr. Haider's paragraph 74.<br>7       Q. In the third sentence, the first<br>8       clause, she says: "Feed costs account for<br>9       approximately two-thirds of the cost of<br>10      raising hogs."<br>11           Do you see that?<br>12       A. Yes, I see that.<br>13       Q. You don't dispute that general<br>14      statement either, do you?<br>15       MR. FINLEY: Objection. Form.<br>16       Scope. Calls for speculation.<br>17       A. I don't recall a place in my<br>18      either opening or reply reports where I<br>19      specifically commented on that -- well, I<br>20      couldn't have commented on it in my opening<br>21      report.<br>22       No, in my reply report, I don't<br>23      recall a sentence right now that<br>24      specifically comments on her claim in the<br>25      first half of that sentence.                      | Page 170 | Page 172<br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       MR. FINLEY: Objection. Form.<br>3       Scope. Lack of foundation. Calls for<br>4       speculation.<br>5       A. I don't recall a sentence in<br>6       either of my reports that specifically<br>7       would be in conflict with that timeline<br>8       described in that sentence.<br>9       Q. If you go down a few more<br>10      sentences, there's some deposition<br>11      testimony from a different Dr. Meyer than<br>12      the USDA economist -- sorry, I actually<br>13      don't know which Dr. Meyer this is<br>14      referring to -- from one of the Dr. Meyers,<br>15      as described by Dr. Haider, Dr. Meyer<br>16      explained in his deposition that Circovirus<br>17      "was a gateway disease that opened up the<br>18      possibility of a lot of other bad things<br>19      happening and a lot of pigs died because of<br>20      it. Once the Circovirus vaccine became<br>21      widely available, it 'almost immediately'<br>22      had significantly more pigs reach market<br>23      weight than had been in the past and so<br>24      productivity increased pretty<br>25      dramatically." |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 Did I read those two sentences<br>3 correctly?<br>4 A. Yes, sir.<br>5 Q. And you don't dispute that once<br>6 the Circovirus vaccine became widely<br>7 available, it resulted in a dramatic<br>8 increase in productivity, correct?<br>9 MR. FINLEY: Objection. Form.<br>10 Scope. Lack of foundation. Calls for<br>11 speculation.<br>12 A. I don't recall right now a<br>13 specific sentence in my reply report that<br>14 disputes these two sentences.<br>15 Q. And then the next sentence says:<br>16 "An article written by Dr. Meyer in January<br>17 2008 states that 'hog prices are low<br>18 because there are lots of hogs available,<br>19 largely because hog producers solved their<br>20 Circovirus death and morbidity losses en<br>21 masse and did so very abruptly.'"<br>22 Did I read that correctly?<br>23 MR. FINLEY: Objection. Form.<br>24 Scope. Calls for speculation.<br>25 I'm sorry, I object to the form | Page 173<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 A. I don't recall a sentence in my<br>3 reply report that specifically addresses<br>4 this sentence. I'm not sure what she means<br>5 by "losing money." There's an important<br>6 difference between accounting profits<br>7 versus economic profits. I'm not sure<br>8 exactly what she's saying here.<br>9 But other than that, I don't<br>10 specifically remember commenting on this<br>11 sentence.<br>12 Q. Yeah, and I think another -- if<br>13 we could just take a look at Tab 9 in your<br>14 binder.<br>15 MR. SCHWINGLER: Bryan, if you<br>16 could pull that up, we'll mark this<br>17 Exhibit 11, and set aside Dr. Haider's<br>18 report for just a moment, but keep it<br>19 handy.<br>20 (Williams' Exhibit 11, 10/22/09<br>21 statement by the Deputy Undersecretary<br>22 of Agriculture Farm and Foreign<br>23 Agricultural Services before<br>24 Congressional Subcommittee, remotely<br>25 introduced and provided electronically  |
| Page 174<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 of your question.<br>3 Objection withdrawn.<br>4 A. You did read it correctly.<br>5 Q. And you don't dispute this<br>6 statement by Dr. Meyer from January of 2008<br>7 that hog producers solved their Circovirus<br>8 death and morbidity losses en masse and<br>9 very abruptly, correct?<br>10 MR. FINLEY: Objection. Form.<br>11 Scope. Calls for speculation.<br>12 A. I don't recall a sentence or<br>13 section in my reply report that<br>14 specifically addresses this.<br>15 Q. The next sentence in Dr. Haider's<br>16 report reads: "The combination of high<br>17 feed costs and low hog prices meant that<br>18 hog producers were losing money during this<br>19 time period."<br>20 Did I read that correctly?<br>21 A. Yes, sir.<br>22 Q. And you don't dispute that<br>23 statement by Dr. Haider either, correct?<br>24 MR. FINLEY: Objection. Form.<br>25 Scope. Calls for speculation.             | Page 174<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 to the reporter.)<br>3 MR. SCHWINGLER: Bryan, if you<br>4 could turn to the next page, which is<br>5 page 1 of the actual exhibit.<br>6 Q. Dr. Williams, I know you're<br>7 pulling it open now. What you'll be<br>8 looking at is Exhibit 11 for your<br>9 deposition, which is a statement by the<br>10 Deputy Undersecretary of Agriculture Farm<br>11 and Foreign Agricultural Services before a<br>12 Congressional Subcommittee on October 22,<br>13 2009, and I'm going to be asking you about<br>14 the third paragraph on the first kind of<br>15 page of his statement that begins with "Hog<br>16 production is cyclical."<br>17 And specifically, the sentence<br>18 beginning with, "According to Dr. John<br>19 Lawrence."<br>20 So that sentence reads:<br>21 "According to Dr. John Lawrence of Iowa<br>22 State University, a typical Iowa-southern<br>23 Minnesota farrow-to-finish operation,<br>24 experienced monthly losses per hog marketed<br>25 averaging about \$20 for the 24 months from |

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| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 slaughter by U.S. packers."<br>3       Did I read that correctly?<br>4       A. Yes, sir.<br>5       Q. And after a citation, she goes on<br>6 to say: "Imports of live hogs, excluding<br>7 breeding animals from Canada, fell from a<br>8 peak of 9.9 million heads in 2007,<br>9 representing 9 percent of hogs slaughtered<br>10 in the U.S. to 6.3 million heads in 2009."<br>11       Did I read that correctly?<br>12       A. Yes, sir.<br>13       Q. Then, after the citation, she<br>14 says: "This reduction in imports<br>15 represented a 3.3 percent reduction in hogs<br>16 available for slaughter by U.S. pork<br>17 processors."<br>18       Did I read that correctly?<br>19       A. Yes, sir.<br>20       Q. And then she goes on after the<br>21 citation to say, "Imports of live hogs from<br>22 Canada continued to decline after 2010,<br>23 remaining below 6.0 million heads until<br>24 2021."<br>25       Did I read that right?   | 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       MR. FINLEY: Objection. Form.<br>3       Scope. Calls for speculation.<br>4       A. I don't remember a specific<br>5 sentence that talks about this exact<br>6 sentence in Dr. Haider's Report.<br>7       I would point out, of course,<br>8 that both my -- that my overcharge<br>9 regression includes a number of demand side<br>10 variables, none of which were objected to<br>11 by Dr. Haider that measure and account for<br>12 the demand for pork products.<br>13       Q. And we may end up getting into<br>14 sort of what, if anything, to make of all<br>15 of this at some point.<br>16       Just in terms of the basic<br>17 underlying industry facts, you're not<br>18 disputing that demand for pork in 2008 was<br>19 at a 31-year low, correct?<br>20       MR. FINLEY: Objection. Form.<br>21       Scope. Calls for speculation.<br>22       A. As I say, I don't specifically<br>23 remember addressing that exact sentence.<br>24 But what I'm pointing out is that it's an<br>25 empirical -- I don't know what "weakest"    |
| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       A. Yes, sir.<br>3       Q. And you don't dispute any of<br>4 these statements about hog imports from<br>5 Canada in Footnote 118, do you?<br>6       MR. FINLEY: Objection. Form.<br>7       Scope. Calls for speculation.<br>8       A. I don't recall a place in my<br>9 reply report where I address these<br>10 sentences.<br>11       Q. Let's go to paragraph 92 of<br>12 Dr. Haider's Report and I'll look at the<br>13 second sentence where Dr. Haider writes:<br>14 "The industry experienced the weakest pork<br>15 demand in a 31-year period in 2008 leading<br>16 to one of the most challenging times in<br>17 history for pork producers."<br>18       Did I read that correctly?<br>19       A. Yes, that's correct.<br>20       Q. And I'd like to focus on the<br>21 first clause of that sentence, "The<br>22 industry experienced the weakest pork<br>23 demand in a 31-year period in 2008."<br>24       You don't dispute that statement<br>25 in your reply report, do you? | 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 means, but it's not the way an economist --<br>3 it's not a word that an economist would<br>4 usually use in this context.<br>5       But whatever empirically is the<br>6 demand for pork, that's what is measured<br>7 actually in both Dr. Haider's and my<br>8 overcharge regressions. I think we use --<br>9 I can't think of a demand side variable<br>10 that's different between our regressions.<br>11 I'd have to double-check that. I don't<br>12 remember one right now.<br>13       But at any rate, there are a<br>14 number of demand side variables in my<br>15 overcharge regression, both the one in my<br>16 opening report, as well as the sensitivity<br>17 analyses in my reply report responding to<br>18 her comments.<br>19       So it's an empirical claim.<br>20 Whether or not it's true, I don't have a<br>21 specific opinion about that I mention in my<br>22 report. But at any rate, the pork demand<br>23 is measured by the demand side variables in<br>24 overcharge regressions.<br>25       Q. So if you go to the next |

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| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 sentence, she writes: "In addition, as a<br>3 result of the Circovirus vaccine which<br>4 became widely available by mid-2007, hog<br>5 mortality levels decreased rapidly in the<br>6 latter part of 2007 and 2008, meaning<br>7 greater percentage of pigs survived to<br>8 market weight than anticipated by producers<br>9 when they made breeding decisions."<br>10       Did I read that correctly?<br>11       A. Yes, you did.<br>12       Q. And you don't dispute that<br>13 statement by Dr. Haider, correct?<br>14       MR. FINLEY: Objection. Form.<br>15       Scope. Calls for speculation.<br>16       A. I don't recall a sentence in my<br>17 reply report right now that specifically<br>18 addresses this sentence.<br>19       I would just note that both the<br>20 production regression and overcharge<br>21 regressions in my reports do contain<br>22 variables for the cost of producing hogs.<br>23       Q. Yeah, but -- and we may get into<br>24 that -- oh, sorry, go ahead, you can<br>25 finish.                     | Page 185<br><br>1       M. WILLIAMS - CONFIDENTIAL<br>2 producers -- I don't know, anticipated by<br>3 producers to me is very vague. I don't<br>4 know how one would measure the<br>5 anticipations of producers.<br>6       But having said that, I don't<br>7 otherwise specifically remember addressing<br>8 this sentence.<br>9       Q. You don't think there's any way<br>10 to analyze empirically what hog<br>11 producers -- what information was available<br>12 to hog producers when they made decisions<br>13 about how many hogs to produce?<br>14       MR. FINLEY: Objection. Form.<br>15       Mischaracterizes prior testimony.<br>16       Calls for speculation.<br>17       A. Yeah, that's not what I said. I<br>18 was referring to her phrase where she talks<br>19 about anticipated by producers and I was<br>20 just pointing out that she -- her report<br>21 doesn't contain any empirical study other<br>22 than a cite to -- I guess it looks like<br>23 some congressional testimony.<br>24       So it looks like she -- I'm<br>25 reading here, it looks to me like she got                              |
| Page 186<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       A. I'm sorry, I didn't state that<br>3 very well. I didn't mean cost of producing<br>4 hogs.<br>5       I was really referring to<br>6 paragraph 153 in my opening report called<br>7 hog costs. Sorry.<br>8       Q. And just so we're clear, I think<br>9 is when you said, when Dr. Haider writes<br>10 that a greater percentage of pigs survive<br>11 to market weight than anticipated by<br>12 producers when they made breeding<br>13 decisions, you're not disputing that<br>14 statement, correct?<br>15       MR. FINLEY: Objection. Form.<br>16       Scope. Calls for speculation.<br>17       A. I don't remember specifically<br>18 addressing this sentence. It sounds rather<br>19 speculative to me. I don't know, when she<br>20 writes anticipated by producers, I don't<br>21 know -- I don't know what kind of study --<br>22 I don't see any particular study she's<br>23 performed to measure -- to determine that a<br>24 greater percentage of pigs survived to<br>25 market weight than anticipated by | Page 186<br><br>1       M. WILLIAMS - CONFIDENTIAL<br>2 the word anticipated from Dr. Buhr, I<br>3 guess, B-U-H-R, from his congressional<br>4 testimony. I don't know how Dr. Buhr<br>5 measured pork producers' anticipations.<br>6       At any rate, as I said, I don't<br>7 specifically remember commenting on this<br>8 sentence. As I said, it does seem very<br>9 speculative to me. I don't know how Dr.<br>10 Buhr purported to measure the anticipations<br>11 of producers.<br>12       Q. Maybe I'll come at a slightly<br>13 different angle. This may help.<br>14       So you're not offering an opinion<br>15 that, contrary to Dr. Haider's assertion,<br>16 hog producers, in fact, did anticipate the<br>17 decrease in mortality from the forthcoming<br>18 Circovirus vaccine and factored that<br>19 anticipated reduction in mortality into<br>20 their production decisions, correct?<br>21       MR. FINLEY: Objection. Form.<br>22       A. As I said, I don't recall a<br>23 sentence in my reply report that<br>24 specifically addresses this sentence -- oh,<br>25 but your question was, yeah, do I have a |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 is changing all the time.<br>3 So an exogenous factor like this<br>4 would cause a "permanent change" subject to<br>5 the caveat that that means all other<br>6 factors being held the same.<br>7 Q. I understand.<br>8 So the kind of next clause in<br>9 that sentence I read says, "Leading<br>10 suppliers to increase total pork supply<br>11 instead of fixing total supply and reducing<br>12 domestic supply year after year."<br>13 When you use the term "suppliers"<br>14 in this context, who are you referring to?<br>15 A. Pork producers.<br>16 Q. "Pork producers" is kind of a<br>17 tricky term in this industry because I<br>18 think the way industry participants use<br>19 that, that would refer to hog producers,<br>20 not to pork packers. So I just want to<br>21 make sure we kind of have consistent uses<br>22 of term.<br>23 Are you referring -- let me just<br>24 say it, are you referring to packers or hog<br>25 producers when you say "suppliers" in this | Page 193<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 sure there's a number of things they would<br>3 do, but one of the things they would do is<br>4 they would buy more hogs.<br>5 Q. Yeah, and in order for them to<br>6 buy more hogs, someone would have to grow<br>7 more hogs, correct?<br>8 MR. FINLEY: Objection. Form.<br>9 Scope. Calls for speculation.<br>10 A. Yeah. I mean, your use of the<br>11 word "someone" is a little vague. But<br>12 certainly you can't buy a hog that doesn't<br>13 exist. So yes, they would be buying more<br>14 hogs and that would -- in other words, we<br>15 would be moving back up that supply curve<br>16 shown in Figure 1. So the equilibrium<br>17 quandary supply of hogs, all other factors<br>18 being of the same, would increase.<br>19 Q. In order to have more hogs, would<br>20 you need more sows?<br>21 MR. FINLEY: Objection. Form.<br>22 Calls for speculation.<br>23 A. My report doesn't offer an<br>opinion on that.<br>25 Q. So, and I guess this sentence   |
| Page 194<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 sentence?<br>3 MR. FINLEY: Objection. Form.<br>4 I'm finished objecting.<br>5 Go ahead and answer.<br>6 A. Yeah, I'm referring to packers.<br>7 Q. So it says here in the sentence,<br>8 "Following the change in international<br>9 demand, permanently leading suppliers to<br>10 increase total pork supply."<br>11 Based on your analysis of the<br>12 industry, how quickly could packers bring<br>13 about an increase in pork supply?<br>14 MR. FINLEY: Objection. Form.<br>15 Scope.<br>16 A. As we've talked about earlier, my<br>17 report doesn't offer a specific opinion<br>18 about the timing on that.<br>19 Q. What would packers need to do in<br>20 order to increase total pork supply as<br>21 suggested in paragraph 75?<br>22 MR. FINLEY: Objection. Form.<br>23 Scope. Calls for speculation.<br>24 A. Well, as we talked about when we<br>25 were looking at Figure 1, they would -- I'm  | Page 194<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 that I read to you about suppliers, leading<br>3 suppliers to increase total pork supply,<br>4 you're not offering an opinion on when that<br>5 would happen like in the real world, how<br>6 long it would take, when it would occur<br>7 relative to the increase in export sales,<br>8 is that fair?<br>9 A. Yes. As we talked about earlier,<br>10 my report doesn't contain a specific<br>11 opinion about the timing between, for<br>12 example, this increase in demand for pork<br>13 that may have resulted from, for example,<br>14 the U.S. Free Trade Agreement. I don't<br>15 offer a specific opinion about the timing<br>16 between such a change in the international<br>17 demand for U.S. pork products and how long<br>18 that would take to be effectuated.<br>19 Q. Do you know what the record shows<br>20 in terms of how far in advance packers<br>21 typically book export sales?<br>22 MR. FINLEY: Objection. Form.<br>23 Potentially on the basis of expert<br>stip, this is asking about materials<br>not included in the report, and also |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 scope.<br>3 A. I'm sorry, can you repeat the<br>4 question? I want to make sure I understood<br>5 it.<br>6 Q. Yeah. So I could have a pound of<br>7 pork in my hands right now and sell it to<br>8 somebody and they'd give me money and I'd<br>9 give them the pork.<br>10 I could enter a contract that<br>11 says five years from now I'll sell you a<br>12 pound of pork and there's all sorts of<br>13 possibilities in between.<br>14 So my question is, do you have an<br>15 understanding as to export sales, typically<br>16 how far in advance packers will commit to<br>17 selling those products, will book the sale?<br>18 MR. FINLEY: Same objections.<br>19 And object based on scope.<br>20 A. My report doesn't offer an<br>opinion on that.<br>22 Q. If you go to paragraph 71 of your<br>reply report, in the second sentence of<br>that paragraph you use a term "supply for<br>foreign markets."   | Page 197<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 second -- yeah, in paragraph 151, that was<br>3 the data I discussed from the USDA about<br>4 quarterly pork production net of net<br>5 exports to measure industry-wide production<br>6 levels of pork products for domestic<br>7 supply.<br>8 And then -- that's what<br>9 Dr. Haider was critiquing in this portion<br>10 of her report, generally, and in paragraph<br>11 88, in particular.<br>12 And then as you said, I used the<br>13 phrase supply for foreign markets, which is<br>14 perhaps a little vague, but I did clarify<br>15 it in paragraph 73, that I was referring to<br>16 U.S. exports of pork product.<br>17 Q. And that's -- yeah, so you're not<br>18 opining, for example, that there are hogs<br>19 that are grown -- that can only be used for<br>20 export sales, right?<br>21 MR. FINLEY: Objection. Form.<br>22 Scope. Calls for speculation.<br>23 A. Again, my report doesn't offer<br>such opinion. Again, I would refer you<br>25 back -- well, we're talking about hogs now,                         |
| Page 198<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 Do you see that?<br>3 A. Yes.<br>4 Q. And how would you define that?<br>5 If it helps, I think you address this in<br>6 paragraph 73? I'm not trying to trick you<br>7 or anything. But just if you could confirm<br>8 how you define the term "supply for foreign<br>9 markets," I would appreciate it.<br>10 A. Yeah. Give me just one second<br>11 because I'm going to check Dr. Haider's<br>12 Report, her report, paragraph 88. If you<br>13 could just give me a second here.<br>14 Yes. So when I -- when I use the<br>15 phrase "supply for foreign markets," as you<br>16 correctly noted, I use that phrase in<br>17 paragraph 71, I explain what I meant in<br>18 paragraph 73. I was just referring to U.S.<br>19 export support products, which is<br>20 Dr. Haider is disputing in this section of<br>21 her report, that I -- in my original<br>22 pork -- yeah, pork output regression, I had<br>23 used, as you and I talked about in my last<br>24 deposition, I had used less pork<br>25 production -- hang on for just one | Page 200<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 so perhaps it's not relevant. I was going<br>3 to refer you back to the section of<br>4 Dr. Mintert's Report that we talked about<br>5 earlier in paragraphs 226 to 229 where he<br>6 distinguishes some pork products that are<br>7 exported, but not highly valued in the U.S.<br>8 Q. And you're not offering an<br>9 opinion that there's entirely independent<br>10 and separate supply chain for pork that<br>11 gets exported than for pork that's sold<br>12 domestically, correct?<br>13 A. That is correct.<br>14 Q. And you're not offering an<br>15 opinion that all pork that was ultimately<br>16 sold overseas during the relevant period<br>17 was categorically unavailable to U.S.<br>18 customers, correct?<br>19 A. I'm certainly not offering that<br>20 opinion. And to be clear, I don't believe<br>21 Dr. Mintert was actually offering that<br>22 opinion either. I think what he was saying<br>23 is there are some pork products that are<br>24 highly valued overseas, but not highly<br>25 valued in the U.S. |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 now on that kind of a stopping point.<br>3 So I guess I have a slight preference<br>4 to break now, but I'll leave it up to<br>5 you, Dr. Williams.<br>6 THE WITNESS: That's fine, but I<br>7 would like to keep the break short<br>8 because the prior one was kind of<br>9 long.<br>10 So if we could just do 15<br>11 minutes, that would be fine by me.<br>12 MR. SCHWINGLER: Okay. Let's do<br>13 that. We can start few minutes after<br>14 the hour.<br>15 THE VIDEOGRAPHER: The time is<br>16 3:48 p.m. and we are going off the<br>17 record.<br>18 (Recess taken from 3:48 p.m. to<br>19 4:09 p.m.)<br>20 THE VIDEOGRAPHER: The time is<br>21 4:09 p.m. and we are back on the<br>22 record.<br>23 BY MR. SCHWINGLER:<br>24 Q. Dr. Williams, I'd like to ask you<br>25 a few questions about your overcharge   | Page 213<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 there, and it might be a typo.<br>3 Q. Okay. I appreciate that<br>4 clarification, but I think there's no<br>5 question that the benchmark period covers<br>6 at least some point in 2005 through the end<br>7 of 2008, is that correct?<br>8 A. That is correct.<br>9 Q. And in the interest of seeing,<br>10 trying to figure out where we're in<br>11 agreement and where we're in disagreement<br>12 or somewhere in between, if I could have<br>13 you look at Tab 6, and this will be Exhibit<br>14 12, I believe.<br>15 (Williams Exhibit 12, Memorandum<br>16 in Support of Motion to Exclude the<br>17 Testimony of Dr. Michael Williams,<br>18 remotely introduced and provided<br>19 electronically to the reporter.)<br>20 BY MR. SCHWINGLER:<br>21 Q. So this is -- Exhibit 12 is our<br>22 brief, our brief in support of our motion,<br>23 and I'll have you look at page 16 of the<br>24 brief. And it's page 20 of the PDF, I<br>25 think, after you get through the |
| Page 214<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 model.<br>3 When we spoke the last time,<br>4 Dr. Williams, we talked a little bit about<br>5 the benchmark period.<br>6 And just to level set, the<br>7 benchmark period for your direct purchaser<br>8 overcharge model in your opening report is<br>9 2005 through 2008, is that right?<br>10 A. Yes, I'm just looking in my<br>11 opening report, and I apologize for the<br>12 delay. And I don't remember if this is a<br>13 typo or not. The opening report says 2005,<br>14 month 3. This is something that's easily<br>15 ascertainable by looking at the backup<br>16 materials. I think that might be a typo,<br>17 but I just don't remember right now.<br>18 It does say in paragraph 218 of<br>19 my opening report that the benchmark period<br>20 used for the regression analysis covers the<br>21 period January 2005 through December 2008,<br>22 and I don't remember right now if it's just<br>23 a typo that in Table 4 of the opening<br>24 report on page 105, it says month 3. I<br>25 don't remember why it says month 3 right | Page 214<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 preliminary things.<br>3 MR. SCHWINGLER: Bryan, for those<br>4 following along, if you could flip to<br>5 page 16 of the brief, I'd appreciate<br>6 it.<br>7 Bryan, I'm not seeing the<br>8 screen -- okay, thank you.<br>9 A. I'm sorry, did you say page 16?<br>10 Q. Page 16, yeah. It's at the<br>11 bottom of page 16, there is a quote from<br>12 Rubinfeld 2009 and another quote from the<br>13 ABA, ABA section of antitrust law.<br>14 So first, we quote -- and this is<br>15 Daniel Rubinfeld's chapter, modern methods<br>16 for measuring antitrust damages, and the<br>17 research handbook on the economics of<br>18 antitrust law from 2009, Chapter 14,<br>19 Section 2B: It is essential that the<br>20 non-impact period be as similar as possible<br>21 to the impact period.<br>22 Do you see that?<br>23 A. Yes, I see that.<br>24 MR. FINLEY: Objection. Form.<br>25 Lack of foundation for the reason that   |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 we're looking at a quote from an<br>3 article.<br>4 Q. And you don't -- you don't<br>5 dispute that principle, do you,<br>6 Dr. Williams?<br>7 MR. FINLEY: Objection. Form.<br>8 Scope. Calls for speculation.<br>9 A. I don't have a specific reason to<br>10 disagree with that quote.<br>11 Q. And then looking at the next<br>12 quote from the ABA section of antitrust<br>13 law, proving antitrust damages, legal and<br>14 economic issues, Third Edition 2017 at page<br>15 181: "It is important to test whether<br>16 prices react differently to the supply and<br>17 demand factors in the conspiracy period<br>18 than they did in the non-conspiracy<br>19 period."<br>20 Did I read that correctly?<br>21 A. Yes, you did.<br>22 Q. All right. And you don't dispute<br>23 that principal either, correct?<br>24 MR. FINLEY: Objection. Form.<br>25 A. Yeah, I don't have a specific                       | Page 217<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 So my only couple of questions<br>3 for you on this --<br>4 MR. FINLEY: I do want to --<br>5 sorry, I want to object to this as an<br>6 exhibit. We can proceed with the<br>7 questioning, but there is some --<br>8 object. Among other things this may<br>9 be supplemental expert work that I'm<br>10 just now seeing. I'm not exactly sure<br>11 who prepared this based on the<br>12 description that's been proffered and<br>13 I think that even as we're having a<br>14 discussion of this, we'll be relying<br>15 on your representations about what's<br>16 been done to these diagrams.<br>17 MR. SCHWINGLER: That's fair.<br>18 BY MR. SCHWINGLER:<br>19 Q. Dr. Williams, I'll have you just<br>20 assume that we've faithfully reproduced<br>21 Exhibit 1 to Professor Mintert's Report and<br>22 Figure 7 to the Complaint.<br>23 My only -- my first question is,<br>24 is just the red shaded area, that does<br>25 represent your benchmark that you used in   |
| Page 218<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 reason to disagree with this.<br>3 MR. SCHWINGLER: You can set that<br>4 exhibit aside.<br>5 So let's take a look at -- I<br>6 think it's Tab 14. This is electronic<br>7 only because I didn't have it when we<br>8 shipped out the exhibit. So this can<br>9 be shown up on the screen, but it<br>10 won't be in the box. This will be<br>11 exhibit -- is it Exhibit 13?<br>12 (Williams' Exhibit 13, Two<br>13 charts, remotely introduced and<br>14 provided electronically to the<br>15 reporter.)<br>16 Q. So Exhibit 13 -- Bryan will<br>17 upload it in a second.<br>18 So Exhibit 13, this is two<br>19 charts. One is based on Exhibit 1 and<br>20 Professor Mintert's Report and one is based<br>21 on Figure 7 in the Commercial Plaintiffs'<br>22 Fourth Amended Complaint.<br>23 And all that we've done to those<br>24 two figures is add in, in red shading, your<br>25 benchmark period. | Page 220<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 your -- in your overcharge model, correct?<br>3 MR. FINLEY: Objection. Form.<br>4 Let me take a step back. I want<br>5 to maintain the objections about where<br>6 this exhibit has come from and who<br>7 prepared it, and also objection, form,<br>8 vague.<br>9 A. Well, the top graph looks a<br>10 little confusing to me. I thought you said<br>11 that the area in red was the benchmark<br>12 period, but there's a dashed line to the<br>13 right of it that says 2009. But the<br>14 benchmark period doesn't go to 2009. So I<br>15 don't understand it.<br>16 Q. The red lines go from 2005 to<br>17 2008 and that's what I'm asking you to<br>18 confirm is your benchmark period.<br>19 A. Well, that part is correct, but<br>20 the graph doesn't appear to be correct<br>21 because there's a -- why is there a gap<br>22 between the right-hand part of the<br>23 benchmark and -- it's kind of small, but it<br>24 looks like it says 2009 alleged conspiracy<br>25 period begins, but why is there a gap |

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| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2           MR. FINLEY: Objection. Form.<br>3       Scope. Calls for speculation.<br>4       A. If I understood your question<br>5 correctly, you're saying if the Circovirus<br>6 was essentially perfect, like if it just<br>7 prevented all such disease from the<br>8 Circovirus, would that, all other things<br>9 equals, tend to increase hog production? I<br>10 think that was your question.<br><br>11 <b>Q. No, no, sorry. It's even simpler</b><br>12 <b>than that, which is if the vaccine comes</b><br>13 <b>along and, you know, it effectively</b><br>14 <b>prevents the disease, would that lead to an</b><br>15 <b>increase or a decrease in mortality?</b><br><br>16     MR. FINLEY: Objection. Form.<br>17     Incomplete hypothetical. Calls for<br>18     speculation.<br>19     A. My report doesn't offer a<br>20 specific opinion about that. But if I'm<br>21 understanding your question correctly, it<br>22 sounds like it would lead to a decrease in<br>23 mortality. But again, my report doesn't<br>24 offer a specific opinion about that.<br><br>25 <b>Q. And if you look at -- if we can</b> | Page 233<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       recollection of it right now. You know,<br>3 obviously the data show what the data show.<br>4 I just don't remember if her<br>5 characterization is correct.<br>6 <b>Q. Do you know, do you know whether</b><br>7 <b>Seaboard's hog farms were -- I don't know</b><br>8 <b>the right word -- infected or -- let's</b><br>9 <b>start again.</b><br>10 <b>Do you know whether Seaboard's</b><br>11 <b>hog farms were ever significantly impacted</b><br>12 <b>by the Circovirus before the vaccine became</b><br>13 <b>available?</b><br>14     MR. FINLEY: And objection on the<br>15 basis of the expert stip that this is<br>16 calling for preliminary work product.<br>17       The witness may answer.<br>18     A. Yeah, I don't recall -- I don't<br>19 recall seeing any -- certainly my reports<br>20 don't offer any opinion about that. I<br>21 don't specifically recall a discussion of<br>22 that right now.<br>23 <b>Q. All right. If we could take a</b><br>24 <b>look at the other variable you mention in</b><br>25 <b>paragraph 118, which is hog cost.</b> |
| Page 234<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 <b>go back to Dr. Haider's report, which is</b><br>3 <b>Exhibit 9 -- I apologize for bouncing back</b><br>4 <b>and forth -- but if we can go to paragraph</b><br>5 <b>127, Note 241.</b><br>6     A. If I could just have a moment to<br>7 read this. It's kind of a long footnote.<br>8 <b>Q. Yeah, no problem. Just let me</b><br>9 <b>know when you're ready.</b><br>10    A. I've read the footnote now.<br>11 <b>Q. And I'd like to just direct you</b><br>12 <b>to about the middle where Dr. Haider refers</b><br>13 <b>to Seaboard's piglet mortality and she</b><br>14 <b>says, "This effect is neither captured</b><br>15 <b>by" -- or she refers to Seaboard's piglet</b><br>16 <b>mortality and then she says "which barely</b><br>17 <b>changed during the period of 2006 and</b><br>18 <b>2008."</b><br>19 <b>Do you see that?</b><br>20    A. Yes, I see that.<br>21 <b>Q. Do you know whether that's</b><br>22 <b>correct? Is her characterization of the</b><br>23 <b>Seaboard mortality data accurate?</b><br>24    MR. FINLEY: Objection. Form.<br>25    A. Yeah, I don't have a specific  | Page 234<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2       Can you remind us, is this the<br>3 <b>hog cost data from Iowa State?</b><br>4     A. That is correct.<br>5 <b>Q. And in Footnote 165, the</b><br>6 <b>paragraph 118 of your reply, you described</b><br>7 <b>some of the components that go into that</b><br>8 <b>variable, which include feed cost, non-feed</b><br>9 <b>cost, and death loss in nursery and</b><br>10 <b>finishing phases.</b><br>11     Did I read that correctly?<br>12    A. Yes, sir.<br>13 <b>Q. All right. And is it your</b><br>14 <b>opinion that Iowa State's hog cost data</b><br>15 <b>capture industry-wide changes in hog</b><br>16 <b>mortality caused by the Circovirus vaccine?</b><br>17    MR. FINLEY: Objection. Form.<br>18    Scope.<br>19    A. There's a lot of background<br>20 noise.<br>21    Well, I would have to<br>22 double-check in a little bit more detail<br>23 the -- all of the factors that are picked<br>24 up in the Iowa State hog cost variable.<br>25    It does talk about death loss  |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 rate in nursery and finishing phases,<br>3 which, of course, would be related to<br>4 mortality rates.<br>5 So I think the short answer to<br>6 your question is yes.<br><b>7 Q. Do you know the components that</b><br><b>8 are listed in paragraph 165, do you know</b><br><b>9 how those components are weighted in the</b><br><b>10 actual hog cost variable itself?</b><br>11 A. I would have to go back and<br>12 double-check. These are described in -- or<br>13 this variable is described in paragraph 153<br>14 of my opening report, in particular the<br>15 data -- the source for the data are given<br>16 in Footnote 169 in that paragraph, but I<br>17 don't specifically remember right now what<br>18 the weights were.<br><b>19 Q. Would it surprise you if the</b><br><b>20 death loss static accounted for less than</b><br><b>21 10 percent of the value of the hog cost</b><br><b>22 variable itself?</b><br>23 A. I don't have a basis to be<br>24 surprised or not surprised. I just don't<br>25 recall right now what the weights are.                        | Page 237<br><br><b>1 M. WILLIAMS - CONFIDENTIAL</b><br><b>2 opinion that, in fact, Iowa State hog cost</b><br><b>3 variable does capture the effects, if any,</b><br><b>4 of the Circovirus vaccine on industry-wide</b><br><b>5 hog production?</b><br>6 MR. FINLEY: Objection. May<br>7 mischaracterize prior testimony.<br>8 A. I thought I answered just the<br>9 opposite a few minutes ago. I said that<br>10 the definition of it, as discussed in<br>11 Footnote 165, says as reflected in the hog<br>12 cost data, hog cost data includes feed<br>13 cost, non-feed cost and death loss rate in<br>14 nursery and finishing phases and certainly<br>15 the latter part, that death loss rate in<br>16 nursery and finishing phases is, of course,<br>17 related to the hog mortality rate, which of<br>18 course is also related to the Circovirus,<br>19 since it affects hog mortality.<br><b>20 Q. I understand what's in your</b><br><b>21 report and what you said generally, but my</b><br><b>22 question was, what did you do to check to</b><br><b>23 see if this variable actually changed in</b><br><b>24 response to the Circovirus vaccine. And I</b><br><b>25 heard you say that's not in your report.</b> |
| Page 238<br><br><b>1 M. WILLIAMS - CONFIDENTIAL</b><br><b>2 Q. And would you agree that the data</b><br><b>3 as provided by Iowa State, you can actually</b><br><b>4 pull out the death loss data separately and</b><br><b>5 use that as a standalone control variable</b><br><b>6 if you wanted to?</b><br>7 MR. FINLEY: Objection. Form.<br>8 Calls for speculation.<br>9 A. That I don't specifically recall.<br>10 It's possible, I suppose. You just have to<br>11 look at the data and see if what you're<br>12 describing is possible.<br><b>13 Q. Did you conduct any analysis to</b><br><b>14 see how the Iowa State hog cost variable</b><br><b>15 actually changed or didn't change as a</b><br><b>16 result of the Circovirus vaccine?</b><br>17 MR. FINLEY: Objection on the<br>18 basis of the expert stip to the extent<br>19 this calls for preliminary work<br>20 product.<br>21 A. I don't believe there's a<br>22 discussion of that in my report, in my<br>23 reply report or my opening report. I don't<br>24 recall a specific discussion of that.<br><b>25 Q. So I guess you're not offering an</b> | Page 240<br><br><b>1 M. WILLIAMS - CONFIDENTIAL</b><br>2 MR. FINLEY: Yeah, and once<br>3 again, object based on expert stip to<br>4 the extent this calls for preliminary<br>5 work product.<br>6 A. Yes. I'll just repeat what I<br>7 said earlier. I don't believe that my<br>8 opening report nor my rely report has a<br>9 specific analysis that addresses exactly<br>10 what you're asking about.<br><b>11 Q. Let's actually go back to your</b><br><b>12 opening report and look at how you</b><br><b>13 described your rationale for using this</b><br><b>14 variable.</b><br><b>15 So let's take look at Exhibit 7</b><br><b>16 and we'll go to paragraph 153.</b><br>17 A. Yes, I'm there.<br>18 Q. All right. You're ahead of me.<br>19 Okay, here we go.<br><b>20 So paragraph 153 says hog costs.</b><br><b>21 That's in italics there, right?</b><br>22 A. That is correct.<br><b>23 Q. And then you say: "The</b><br><b>24 production cost of hogs directly affects</b><br><b>25 Defendants' payment on hogs, which is the</b>  |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 market factors, but they could not have<br>3 been known with certainty.<br><br>4 Q. And you're not offering an<br>5 opinion that Iowa State's hog cost data<br>6 from 2008 reflects the information that was<br>7 available to hog producers in 2007 when<br>8 they decided how many sows to breed,<br>9 correct?<br><br>10 MR. FINLEY: Objection. Form.<br>11 Scope. Calls for speculation.<br>12 A. My report doesn't offer a<br>13 specific opinion about that. As I said,<br>14 certainly a value of the various variables<br>15 that go into that hog cost production<br>16 variable reported by Iowa State, the exact<br>17 values of them in 2008 couldn't have been<br>18 known in 2007. Certainly firms form<br>19 expectations about the direction of market<br>20 factors, market inputs.<br><br>21 You and I talked earlier today<br>22 about, in the reply report, about<br>23 paragraph -- paragraph 124, which related<br>24 to Dr. Haider's comments about which piglet<br>25 loss variable rate -- I'm sorry, which | Page 245<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 correctly.<br>3 Q. And this is -- I asked you a<br>4 similar question earlier with a quote from<br>5 a different source, but you don't dispute<br>6 Dr. Mintert's statement here that the<br>7 Circovirus led to an unexpected increase in<br>8 hog supplies, correct?<br>9 MR. FINLEY: Objection. Form.<br>10 Ambiguous.<br>11 A. My report doesn't offer a<br>12 specific opinion about his use of the<br>13 phrase "unexpected increase." I don't know<br>14 exactly what he means by that.<br>15 You know, we talked earlier about<br>16 expectations. I don't know exactly how he<br>17 came to the conclusion that somehow this --<br>18 that the Circovirus caused an unexpected<br>19 increase in hog supplies. It's not an easy<br>20 thing for an economist to measure firm's<br>21 expectations.<br>22 Q. Yeah, I can help you out a little<br>23 bit maybe. We can just kind of cut to it.<br>24 I think Defendants' position is<br>25 that Circovirus affects mortality primarily                               |
| Page 246<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 piglet loss rate variable should be used.<br>3 And in paragraph 124, I did talk<br>4 about -- I did talk about expectation.<br>5 But at any rate, I agree with you<br>6 that the exact values of the various<br>7 variables that go into that Iowa State hog<br>8 cost, the variable could not have been<br>9 known with certainty in 2007.<br><br>10 Q. And kind of on that point or a<br>11 related point, if you could turn to<br>12 paragraph 22 of your reply.<br>13 A. Okay, I'm there.<br>14 Q. I apologize, 221.<br>15 And there you quote as<br>16 Dr. Mintert as stating: "The recently<br>17 developed and extremely effective<br>18 Circovirus vaccine reduced hog mortality<br>19 and led to an unexpected increase in hog<br>20 supplies."<br>21 Did I read that correctly?<br>22 A. Yes. Could I have just a minute?<br>23 We're jumping around a little bit. I want<br>24 to see where we are.<br>25 Yes, yes, you did read it   | Page 246<br><br>1 M. WILLIAMS - CONFIDENTIAL<br>2 late in the hog's life until months after a<br>3 farrow lining and that the Circovirus<br>4 vaccine was rolled out after farrowing,<br>5 after breeding decisions had been made and<br>6 live animals were on the ground that then<br>7 led to an unanticipated reduction in<br>8 mortality and an increase in hog supply<br>9 beyond the levels the hog producers<br>10 expected at the time they breed the sows.<br>11 That's what is meant by<br>12 unexpected. So when you decided how many<br>13 sows to breed, you thought mortality would<br>14 be X. It turns out due to a change in<br>15 circumstances, it was less than X, so you<br>16 ended up with more market hogs.<br>17 Make sense?<br>18 MR. FINLEY: Objection. Form.<br>19 Compound. Vague and ambiguous.<br>20 A. Yeah, I mean -- you know, I<br>21 understand your testimony on this point.<br>22 But, of course, it's not -- that's not<br>23 in -- I don't remember seeing that in<br>24 Dr. Mintert's report.<br>25 Q. Yeah, I'm just trying to make |

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| 1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 your views of how the cost of acquiring<br>3 hogs affects pork prices.<br>4           MR. FINLEY: Objection. Form.<br>5       A. The -- you know, the most<br>6 important input to producing pork is hogs.<br>7 So if the price of hogs rises, then that,<br>8 all other things equal, is going to cause<br>9 an increase in pork prices.<br><b>10 Q. If packers are making higher</b><br><b>11 margins, all else equal, would that</b><br><b>12 increase their demand for hogs?</b><br>13           MR. FINLEY: Objection. Form.<br>14       Scope. Incomplete hypothetical.<br>15       Calls for speculation.<br>16       A. My report doesn't offer an<br>17 opinion on that.<br><b>18 Q. You used the word endogeneity in</b><br><b>19 paragraph 114. What follows from this</b><br><b>20 endogeneity problem in terms of the impact</b><br><b>21 on the regression model?</b><br>22           MR. FINLEY: Objection. Form.<br>23       Vague.<br><b>24 Q. Yeah, let me just ask it a better</b><br><b>25 way. What impact, if any, does endogeneity</b>   | Page 265<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 variable correlated with the error term is<br>3 endogenous in such a case.<br>4           Now, this is the real problem.<br>5 In the presence of endogeneity, a linear<br>6 regression gives a biased estimate of the<br>7 coefficient for the endogenous variable and<br>8 also of the coefficients for other<br>9 variables, including the impact variable<br>10 that measures overcharges. And then<br>11 there's a quote to a very well-known<br>12 introductory econometrics textbook by<br>13 Professor Wooldridge, W-O-O-L-D-R-I-D-G-E.<br>14           So this is a very well-known<br>15 problem. It's actually been known since<br>16 the 1930s. But there was an economist in<br>17 the 1930s that first understood this.<br>18           And it's discussed in every<br>19 introductory book on econometrics.<br>20           If you have an endogenous<br>21 variable, which Dr. Haider's cost of hogs<br>22 variable certainly is endogenous, then the<br>23 estimated coefficients in that regression<br>24 are biased and that's a fundamental problem<br>25 in applying econometrics. You just don't |
| Page 266<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 have on the regression model?<br>3           MR. FINLEY: Same objection.<br>4       A. So this was discussed in<br>5 paragraphs 113 and 115, but the basic --<br>6 well, I'll just read a little bit. I'll<br>7 just read paragraph 113: "By including the<br>8 cost of acquiring hogs is a variable in the<br>9 overcharge regression" -- let me insert,<br>10 this is not in paragraph 113, but as I<br>11 explain in paragraph 114 -- when Dr. Haider<br>12 included the "cost of acquiring hogs," she<br>13 did it by using the price of hogs. So<br>14 that's the critical thing to understand.<br>15           So by including the cost of<br>16 acquiring hogs as a variable in the<br>17 overcharge regression, Dr. Haider's<br>18 regression suffers from a well-known issue<br>19 of endogeneity that leads to biased<br>20 estimates of the overcharge.<br>21           So there's really the issue, but<br>22 we'll get to it in a bit more detail.<br>23           Endogeneity occurs when an<br>24 explanatory variable in a linear regression<br>25 is correlated with the error term -- the | Page 266<br><br>1 <b>M. WILLIAMS - CONFIDENTIAL</b><br>2 rely on a regression that has biased<br>3 coefficients.<br><b>4 Q. The term you used, "rely." So</b><br><b>5 does endogeneity problem make the</b><br><b>6 regression unreliable?</b><br>7           MR. FINLEY: Objection. Form.<br>8       A. I'll just read what I wrote in<br>9 paragraph 115: "Because the price of hogs<br>10 is endogenous, Dr. Haider does not take any<br>11 measures to solve the endogeneity problem.<br>12 Her estimated overcharge is biased. All of<br>13 the conclusions she draws from her results<br>14 are econometrically invalid."<br>15           So that's my conclusion, that her<br>16 estimated overcharge is econometrically<br>17 invalid.<br><b>18 Q. And you refer to measures to</b><br><b>19 solve the endogeneity problem. What could</b><br><b>20 she have done?</b><br>21       A. Well, the standard --<br>22           MR. FINLEY: Objection. Form.<br>23       Hold on.<br>24           Objection. Form. Scope. Calls<br>25 for speculation.   |

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| 1 M. WILLIAMS - CONFIDENTIAL<br>2 A. Yeah, I should say, she could<br>3 have done what I do, which was to use an<br>4 exogenous variable, namely, the cost of<br>5 acquiring hogs, because that variable is<br>6 not endogenous.<br>7 But the textbook solution would<br>8 be to find what's call an instrumental<br>9 variable. But she didn't do that.<br><b>10 Q. And you don't -- in your reply</b><br><b>11 neither your opening, nor reply report,</b><br><b>12 takes an instrumental variable approach</b><br><b>13 either, correct?</b><br>14 A. That's correct, because it's not<br>15 necessary. Because my hog cost variable is<br>16 not endogenous, as I explain in paragraph<br>17 116.<br><b>18 Q. And then you, in Footnote 162,</b><br><b>19 you mention that the endogeneity problem</b><br><b>20 would also extend to the profitability of</b><br><b>21 raising hogs, not just hog prices, right?</b><br>22 A. That is correct.<br>23 MR. SCHWINGLER: All right.<br>24 That's all I have. I know others --<br>25 there is one co-Defendant that has | Page 269<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 opinions that you're not offering in this<br>3 case.<br>4 Does that make sense?<br>5 A. Sure.<br>6 Q. You are not offering any opinions<br>7 as to how much more pork Clemens would have<br>8 sold absent the alleged conspiracy,<br>9 correct?<br>10 MR. FINLEY: Objection. Form.<br>11 A. That is correct. As you are<br>12 aware, I do have, as we've discussed both<br>13 earlier today and in my first deposition,<br>14 pork production regressions that measure<br>15 industry outputs.<br>16 So I do have an opinion about the<br>17 percentage increase in aggregate U.S.<br>18 production that would have occurred -- just<br>19 to be clear, aggregate domestic consumption<br>20 that would have occurred in the absence of<br>21 the disputed conduct, but I do not have a<br>22 specific opinion about Clemens.<br><b>23 Q. And that's true for all of the</b><br><b>24 Defendants individually, you don't have an</b><br><b>25 opinion as to how much more pork each</b>  |
| Page 270<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 some questions. I think he wanted a<br>3 few minutes to gather his thoughts and<br>4 it's been about an hour and 20 minutes<br>5 anyway. So can we take a short break.<br>6 THE WITNESS: Sure.<br>7 THE VIDEOGRAPHER: The time is<br>8 5:23 p.m. We are going off the<br>9 record.<br>10 (Recess taken from 5:23 p.m. to<br>11 5:35 p.m.)<br>12 THE VIDEOGRAPHER: The time is<br>13 5:35 p.m. We're back on the record.<br>14 EXAMINATION BY<br>15 MR. BHATTACHARYYA:<br><b>16 Q. Good afternoon, Dr. Williams. My</b><br><b>17 name is Amarto Bhattacharyya and I</b><br><b>18 represent Clemens Food Group in this case.</b><br>19 A. Nice to meet you.<br><b>20 Q. I just have a few questions for</b><br><b>21 you. I hope I won't be keeping you too</b><br><b>22 long.</b><br>23 A. I've heard that representation<br>24 before.<br><b>25 Q. So I want to start with some</b>  | Page 270<br>1 M. WILLIAMS - CONFIDENTIAL<br>2 Defendant would have sold individually<br>3 absent the alleged conspiracy, correct?<br>4 A. That is correct. As I said, I<br>5 have, in both my opening report and reply<br>6 reports, I have industry pork production<br>7 regressions that show what the industry --<br>8 what the percentage difference between<br>9 industry U.S. production or consumption<br>10 would be in the actual and but-for worlds.<br>11 That's a difference of about 7 percent in<br>12 my base regression.<br><b>13 Q. You're aware that exports are --</b><br><b>14 an increase in exports is one of the</b><br><b>15 allegations Plaintiffs make in this case,</b><br><b>16 right?</b><br>17 A. Yes. We talked earlier today<br>18 about paragraph 126 in the Complaint and<br>19 Plaintiffs' allegation, as I understand it,<br>20 that there was collusive conduct as it<br>21 pertains to exports. And then we talked<br>22 about the fact that my overcharge<br>23 regression and my production regression<br>24 measure empirically whether or not the<br>25 effectiveness of the asserted conduct -- |